

Big Horn County Facilities

Big Horn County owns multiple community buildings and facilities, with managers, directors, superintendents and/or supervisors providing oversight to each facility.

Decker, Montana:

- Road Department Facilities – Matt Redden, Superintendent

Hardin, Montana:

- Ambulance Facility – Daniele O'Banion, Director
- Courthouse – County Commissioners
- Fairgrounds
- Library – Eric Halverson, Director
- Little Bighorn Center – Kathy Real Bird, Director
- Museum – Diana Scheidt, Executive Director
- Roads Department Facilities – Matt Redden, Supervisor

Lodge Grass, Montana

- Road Department Facilities – Matt Redden, Supervisor
- Senior Center

Introduction Summary on Energy Conservation Plan and Intent

Big Horn County Commissioners and Big Horn County facility managers, directors and administrators have developed a history of proactively addressing the energy efficiency of all Big Horn County facilities. Prior to the Governors development of a statewide Energy Policy, with directive being focused on reduction of energy consumption, the County Commissioners have provided funding within each budget year to help promote, and assist Big Horn County facilities with concerted efforts of improving and retrofitting existing buildings with energy efficient products. Within Big Horn County, facilities built and or renovated within the last five years have incorporated energy efficient and sustainable building techniques in their construction.

In conjunction with this plan, Big Horn County, with advisory representation from the majority of Big Horn County agencies, will implement goals, promote strategies and convey the importance and significance of energy conservation within their individual facilities, to their peers.

To determine what types of energy efficient measures will be implemented, Big Horn County must first assess the current energy consumption of all Big Horn County owned and leased facilities. This will be accomplished through physical facility and equipment audits, energy consumption reports, benchmarking and on-going evaluations which will be performed by Big Horn County staff. Additionally future plans are to incorporate opportunities that will further promote energy conservation within Big Horn County facilities, including a website “Energy” component, educational awareness to Big Horn County staff and community members and educational brochures and pamphlets for visitors to Big Horn County facilities. To date, the Big Horn County Courthouse received energy efficiency retrofits through funding from a Montana DEQ EECBG grant. In addition to the Courthouse, the Big Horn County Hospital and Heritage Acres Nursing Home received retrofits. Total grant funding for these projects totaled \$225,000 with an expected energy savings payback at less than six years.

Implementation of energy efficiency and conservation measures in Big Horn County’s daily operations is essential for reducing energy consumption, as well as costs, which can conceivably redirect savings to potentially fund energy programs, future energy upgrades or funding to meet other Big Horn County needs. This plan demonstrates examples of energy efficient measures that can be applied against areas such as lighting upgrades and retrofits, temperature control, infrastructure purchasing and/or procurement, renewable energy and alternative fuels.

Big Horn County employee awareness is the most fundamental part of the ECP. Educating employees about the need for energy conservation, while additionally promoting behavioral modifications of staff, both coupled with energy measures within facilities, can all systematically make a difference regarding Big Horn County facilities becoming more energy efficient, with reduction in costs.

The efforts put forth in preparing this plan are uniform with many other county agencies, from local, state and national perspectives, regarding energy conservation programs. The

ECP and its content is not intended to reduce basic necessities, such as lighting, heat, air conditioning, safety or overall day to day operational characteristics required as necessities by Big Horn County employees in meeting performance standards of their daily activities within Big Horn County facilities. It is intended to promote and/or provide solutions to perform Big Horn County required services, in the most cost effective and energy efficient manner regarding energy conservation.

The energy efficient measures described in this Plan are potential and proven methods and measures that could reduce energy consumption and costs. Energy efficiency measures that are not included in this Plan are encouraged to be presented for review and potential future implementation in ECP updates.

Energy Conservation Action Plan Overview

This ECP was developed in an effort to reduce and manage energy costs within Big Horn County facility buildings. The Big Horn County Commission will be responsible for monitoring utility usage and implementing and instituting the improvements and procedures necessary to produce energy savings, cost avoidance and reduction of unnecessary utility resources usage. The acknowledgment and personal acceptance of this program regarding each Big Horn County employee and their individual ability to adhere to the ECP recommendations, policies and procedures, and most important - adapting to the ECP through “behavioral modification” aspects - could be the most important factor contributing to the success of the program.

Within the ECP, five major utility cost contributors have been identified that must continuously be monitored and conserved: electric, fuel oil, natural gas, propane and water/wastewater. Over the course of the last five years, the budget for these utilities has continued to escalate due to rate increases, and uncontrolled, increased usage. With increases in rates and the development of new technologies that better support energy conservation, the Big Horn County Commission will continue to research and explore all options to control our utilities budget.

The effective management of energy is based on three basic principles:

- 1) Changing the philosophy about energy usage;
- 2) Initiating changes within the Big Horn County facilities environment; and,
- 3) Promoting educational awareness for energy conservation success.

With planning, implementation, education, and targeted spending, Big Horn County energy conservation goals can be reached.

Program Goals and Objectives

The ECP identifies a variety of actions for Big Horn County and its partners to undertake of to support in order to encourage energy conservation throughout community development and community life. They promote awareness for energy alternatives, encourage the use of conservation practices and recommend model provisions for the siting and operation of energy production facilities.

Big Horn County has been recognized for its recent implementation of modern energy procedures and policies. The County strives to reduce energy demand and achieve energy efficiency in the design, maintenance and operation of public facilities. In the private sector, it promotes alternatives to conventional subdivision and land development that reduce energy demands for heating and cooling.

The vast majority of money spent on energy related bills immediately leaves the local economy. Finding ways for each household, business and government entity to spend less on energy means a significant amount of funds can be used on other priorities, generating economic benefits. Clean energy also represents one of the few opportunities for new growth in a stagnant economy and can be a significant source of local jobs.

Energy conservation, energy efficiency and renewable energy strategies generally produce the same kinds of economic benefits, and while the return on investment varies, all ECP strategies can produce long-term economic benefits for Big Horn County.

Key Objectives

- Facility lighting accounts for approximately 1/3 of facilities electrical energy use, or, 25-40% of overall electricity costs. It is estimated that 8-20% of these lighting costs can be reduced by turning off lights when not in use or retrofitting existing light fixtures with occupancy sensors. Within the past eighteen months, lighting retrofits have been made to the Big Horn County Courthouse, the Big Horn County Hospital and the Big Horn County Heritage Acres Nursing Home.

Big Horn County savings with this recommended method could result in estimated savings between \$20-\$40 thousand dollars annually. Big Horn County savings are relative to utility costs only as these dollar estimates do not factor in actual cost of replacement bulbs based on extended life cycles, or facilities maintenance man hours.

- De-lamping offers Big Horn County and its facilities the opportunity to conserve energy by simply removing one or more lamps from multiple lamp fixtures. Based on National industry lighting calculations, each 36 watt fluorescent tube removed could achieve savings of approximately \$8.00 dollars per year, based on typical usage of 40 hours per week. Big Horn County energy savings through de-lamping processes could result in energy reductions and major cost savings.

De-lamping is effectively free with major reduction in energy costs, and actually provides spare lamps that can be returned to Big Horn County inventory for future